

REMARKS

Claims 1-21 are pending. By this Amendment, Claims 1, 4-7, 9-11 and 14-21 are amended.

In the Office Action, the Examiner rejects Claims 1-21 under 35 U.S.C. § 103(a) as being unpatentable over Lin et al. (United States Pre-Grant Publication No. 2002/0133619, hereinafter “Lin”) in view of Bremer et al. (U.S. Patent No. 6,553,002, hereinafter “Bremer”).

This rejection is respectfully traversed.

Lin discloses searching a rules table using a binary search, to find a rule that matches a particular combination of data and filter mask. In particular, Lin discloses that a mask from a mask table is multiplied with a data value, and the resulting product is sequentially compared with rules from a rules table until a matching rule is found or available rules are exhausted, whichever comes first. Thereafter a next mask is selected to provide a new product, and the process is repeated. Figure 12 shows an exemplary circuit for performing this comparison process (see also numbered paragraphs [0143]), and Figure 14 shows a flow diagram illustrating the process (see also numbered paragraphs [0148] – [0150]). If a rule does not match the product, then a next rule is selected based on the comparison and using a binary search. See, for example, Figure 11 and numbered paragraph [0140], which generally describe binary searching, and numbered paragraph [0143], which describes Lin’s comparison process and mentions binary searching. See in particular the second half of paragraph [0143] beginning with “*Mux 312 is configured to receive the control signal of ‘>’, ...*”.

Thus, Lin matches a particular rule with a particular product of data and mask. Lin discloses that the pointers table can specify a range of rules to be compared with a particular product. See, e.g., numbered paragraphs [0142], [0149]. At most only one rule within the range will be matched to a given mask and data combination or product. See, e.g., numbered paragraph [0150].

However, Lin does not disclose or suggest a rule that applies to a *range* of key values, and fails to disclose or suggest searching a plurality of objects defining key ranges to identify an

object that defines a smallest range that includes a provided key. Accordingly, Lin fails to disclose or suggest “*arranging a plurality of objects in a table based on an ordering of information associated with each object, wherein each object defines a key range comprising at least one key value and at least one of the key ranges comprises multiple key values; if the key is provided, employing a search method to determine a starting object entry in the table; if the key range of the starting object entry in the table is unequal to the provided key, employing another search method to determine at least one object in the table that defines a smallest key range that includes the provided key; and enabling the processing of the provided key based on at least one rule associated with the determined object wherein the at least one rule applies to all key values of the key range of the determined object*”, as recited in Claim 1, and similar features recited in independent Claims 11 and 21.

Bremer apparently fails to overcome these deficiencies of Lin described above. Accordingly, the asserted combination of Lin and Bremer fails to disclose or suggest the claimed invention. Withdrawal of the rejection of Claims 1-21 under 35 U.S.C. § 103(a) over Lin and Bremer is respectfully requested.

Applicant respectfully submits that the application is in condition for allowance. Favorable consideration on the merits and prompt allowance are respectfully requested. In the event any questions arise regarding this communication or the application in general, the Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below.

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Respectfully submitted,

By 
M. David Ream
Registration No.: 35,333
DARBY & DARBY P.C.
P.O. Box 5257
New York, New York 10150-5257
(206) 262-8900
(212) 527-7701 (Fax)
Attorneys/Agents For Applicant